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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,372	05/31/2001	Shinobu Sato	14672	1758

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EXAMINER

LU, TOM Y

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/871,372	SATO, SHINOBU	
	Examiner	Art Unit	
	Tom Y. Lu	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11 and 23-26 is/are rejected.
- 7) ☒ Claim(s) 12-22 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment and written response filed on 12/27/2005 has been entered and considered.
2. Claim 24 has been amended,
3. No claims have been cancelled.
4. Claims 1-27 are pending.

Response to Arguments

5. Applicant's arguments filed on 12/27/2005 have been fully considered but they are not persuasive.

The Braudaway reference:

Applicant argues the Braudaway reference fails to teach an adjustment circuit which adjusts the insertion degree based on the numbers counted by said counter. Upon further review of specification and in light of applicant's argument, the examiner respectfully disagrees as follows: the Braudaway reference teaches a watermarking technique that embeds watermark data at a proper modulation strength, so during the detection stage, the watermark data can be replicated properly. For example, in figure 12, the watermark data is replicated. Although the IBM logo is recognizable, however, it is apparent the replicated data contains noise. Therefore, it is desirable to increase the modulation strength to 4%, and now the replicated watermark data as shown in figure 13 contains very little noise. The process of knowing embedding watermark at what percentage of modulation strength requires use of counters $C(i', j')$ and $C'(i', j')$ to count the coincidence elements and non-coincidence elements to create a visualizer-coincidence image,

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which displays the watermark data (IBM logo as shown in figures 12 and 13), and the operator can judge whether the replicated watermark data is replicated at a satisfactory level, and if not, the modulation strength during the embedding process needs to be adjusted to a level (eg. 4%) that can produce a watermark that satisfies the operator. Therefore, the adjustment of the modulation strength/insertion degree does depend upon the numbers counted by the counters $C(i', j')$ and $C'(i', j')$.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 11 and 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Braudaway et al (U.S. Patent No. 5,825,892).

- a. Referring to Claim 11, Braudaway discloses a data insertion circuit (computer 104 as shown in figure 1 is the claimed data insertion circuit) for inserting second data (watermark data, column 6, line 38) into first data (image data 101, column 6, line 15), said circuit comprising: an insertion circuit which inserts the second data into the first data at a predetermined insertion degree (a modulation strength for example 1%, column 19, line 44) so as to create third data (a watermarked image, column 6, line 45); a selection circuit (selector 1002, column 19, line 7) which selects either data of the first data or third data; a counter (counters $C(i', j')$ and $C'(i', j')$) count the coincidence elements and non-coincidence elements

respectively, and $C(i', j') + C'(i', j')$ is claimed NA; and $C(i', j')$ is the claimed N3, column 20, lines 1-20) which counts a number NA times selection is made in said selection circuit and a number N3 of times the third data is selected; and an adjustment circuit which adjusts the insertion degree, based on the numbers counted by said counter (Braudaway at column 19, lines 42-51, implies when modulation strength of 1% can not make the watermark visualized, it is desired to apply a stronger modulation strength of 2% or 4%. Note the modulation strength herein is the claimed insertion degree, column 3, line 64).

- b. Referring to Claim 23, Braudaway discloses wherein said selection circuit compares a data length of the third data and a data length of the first data; selects the third data in a case where the data length of the third data coincides with the data length of the first data; and selects the first data in a case where the data length of the third data does not coincide with the data length of the first data (column 20, lines 51-56).
- c. With regard to Claim 24, see explanation in Claim 11.
- d. Referring to Claim 25, Braudaway discloses wherein adjusting includes adjusting the insertion degree based on the number NA and the number N3 (the modulation strength are adjusted based on the detection parameters of $C(i', j') + C'(i', j')$ and $C'(i', j')$).
- e. Referring to Claim 26, see equation 17 at column 20.

Allowable Subject Matter

- 7. Claims 1-10 are allowed as indicated in the previous office action dated 06/03/2005.

8. Claims 12-22 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y. Lu whose telephone number is (571) 272-7393. The examiner can normally be reached on 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571)-272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Y. Lu



JINGGE WU
PRIMARY EXAMINER